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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,096	06/29/2000	Menachem Levanoni	YOR9-2000-0431US1	8138

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EXAMINER	
STIMPAK, JOHNNA	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No.	Applicant(s)	
	09/607,096	LEVANONI ET AL.	
	Examiner	Art Unit	
	Johnna R Stimpak	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a non-final office action upon examination of application number 09/607,096. Claims 1-11 are pending and have been examined on the merits discussed below.

Response to Arguments

2. Applicant's arguments, see paper no. 8, page 6, filed January 14, 2004, with respect to 35 USC 101 have been fully considered and are persuasive. The rejection of claims 1-9 and 11 under 35 USC 101 has been withdrawn.

3. Applicant's arguments, see paper no. 8, pages 7-11, filed January 14, 2004, with respect to the rejection(s)of claim(s) 1-11 under 35 USC 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lee et al, US 5,712,985 and Emert, "Gap Sizzles. A San Francisco apparel retailer out-markets the high-tech firms".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1-11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al, US 5,712,985, in view of Emert's article,

As per **claim 1**, Lee discloses a method suitable for projecting demand, the method comprising the steps of:

(i) identifying a first set of merchandise (column 3, lines 1-45 – a business item is selected for the purpose of forecasting future demand levels).

(ii) soliciting information relative to demand behavior for a pre-determined attribute of said first set of merchandise (column 3, lines 1-45 – the influence profile reflects the changes in demand due to a particular condition or attribute);

(iii) generating a demand profile for the predetermined attribute of the set of merchandise (column 3, lines 1-45 – the influence profile and base profile represent the demand for a particular business item and are used to project a forecast profile to determine anticipated demand);

(iv) generating a demand model correlated to model-based demand attributes of said first set of merchandise (column 3, lines 1-45 – the demand model is formed from the profiles); and

(v) combining the step (iii) demand profile and the step (iv) model into a single encompassing model which is capable of projecting demand of the first set of merchandise, wherein at least one of the clustering for generating the demand profile, clustering for generating a demand model, and combining the generated demand profile and generated demand model are executed on a computer CPU (column 3, lines 1-45 – the business influence model is composed of the influence profile and base profile that represent the demand for a particular business item and are used to project a forecast profile to determine anticipated demand; column 4, lines 40-67 – the demand model is carried out on a computer system) .

While Lee does not explicitly teach specifying a second set of merchandise and clustering to perform the demand forecasting, Lee does teach managing profiles wherein sales data are compiled to determine attributes that influence the change in demand of the item (column 3, lines 1-45 – the influence profile reflects the changes in demand due to a particular condition or attribute). As taught in the article by Emert, apparel companies use demand forecasting to ensure they are carrying the right quantities, sizes and colors. Therefore, since Lee teaches using profiles that show actual demand quantities, it would have been obvious to one of ordinary skill in the art to use attributes such as size or color for an item to project a demand forecast for other items to ensure the most accurate levels of inventory are stocked to fulfill the demand for that item. If it is found that a size is selling well in skirts, one could project a future demand of that size in shorts or other pants – leading to the conclusion that most consumers at that establishment are a certain size.

As per **claim 2**, Lee et al in view of Emert discloses a method according to claim 1. Neither explicitly discloses wherein said first and second set of merchandise are disparate. However, it is old and well known in the art for the merchandise in a model to be disparate. Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to have disparate merchandise, as it would allow one to pick two separate and distinct retail items to predict future demand. By having two disparate items, one will be able to find trends throughout the retail store rather than in a specific type of clothing or brand.

As per **claim 3**, Lee et al in view of Emert discloses a method according to claim 1. Neither explicitly discloses wherein said first and second set of merchandise overlap. However, it is old and well known in the art to teach merchandise in a model to overlap. Therefore, it

would be obvious to one of ordinary skill in the art at the time of the invention to have the merchandise overlap as it would allow TSI to forecast future retail inventory sales and purchases based on the way similar retail items have sold thus reducing the retail owners risk of profit loss from the first set of retail items.

As per **claim 4**, Lee et al does not explicitly disclose a method according to claim 1, comprising the step of selecting the pre-determined attribute of said first set of merchandise from the group consisting of item, size, and location. Lee does teach projecting the demand based on a base profile that shows actual demand quantites. Emert discloses that apparel companies use demand forecasting to ensure they are carrying the right quantities, sizes and colors. Therefore, since Lee teaches using profiles of actual demand quantities to forecast the demand, it would have been obvious to one of ordinary skill in the art to use attributes such as size or color for an item to project a demand forecast for other items to ensure the most accurate levels of inventory are stocked to fulfill the demand for that item. If it is found that a size is selling well in skirts, one could project a future demand of that size in shorts or other pants – leading to the conclusion that most consumers at that establishment are a certain size.

As per **claim 5**, Lee et al does not explicitly disclose a method according to claim 1, comprising the step of selecting a pre-determined attribute of said first set of merchandise from the group consisting of item, size, color, and location. Lee does teach projecting the demand based on a base profile that shows actual demand quantites. Emert discloses that apparel companies use demand forecasting to ensure they are carrying the right quantities, sizes and colors. Therefore, since Lee teaches using profiles of actual demand quantities to forecast the demand, it would have been obvious to one of ordinary skill in the art to use attributes such as

size or color for an item to project a demand forecast for other items to ensure the most accurate levels of inventory are stocked to fulfill the demand for that item. If it is found that a size is selling well in skirts, one could project a future demand of that size in shorts or other pants – leading to the conclusion that most consumers at that establishment are a certain size.

As per **claim 6**, Lee et al in view of Emert discloses a method according to claim 1. Neither explicitly discloses wherein step (iii) comprises clustering the second set of merchandise by utilizing an algorithm which partitions this set into non-overlapping clusters with similar size profiles. However, it is old and well known in the art to disclose an algorithm with non-overlapping clusters with similar size profiles. Therefore, it would have been obvious to one of ordinary skill in the art to disclose an algorithm with non-overlapping clusters with similar size profiles as one would want to compare data of the same size to accurately forecast future demand.

As per **claim 7**, Lee et al discloses a method of claim 1, wherein the step (iv) comprises generating a demand model based on modeling demand as a function of major variables selected from a group consisting of price, promotions, inventory level, and seasonal effects (column 3, lines 28-40 – the influence profile includes such things as seasonality which is used in the demand model).

As per **claim 8**, Lee et al discloses a method according to claim 1, wherein step (v) comprises combining the demand profile and the demand model into a single encompassing model by apportioning the model-based demand forecast (column 3, lines 1-45 – the base, influence and forecast profiles are all combined to form the demand model forecast). Lee et al

does not explicitly disclose having the appropriate size distribution using a size demand profile. However, it is old and well known in the art to disclose have a reasonable size distribution for the demand profile to ensure accurate results. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have an appropriate size distribution in the demand profile as it increases the reliability of the data used to forecast demand and provides a more accurate and reliable forecast.

As per **claim 9**, it is the computer implemented method of claim 1, therefore the same rejection as applied to claim 1 also applies to claim 9 since Lee et al teaches a computer system to perform the demand forecasting as in column 4, lines 40-67.

As per **claim 10**, it is the computer suitable for the method projecting demand in claim 1, therefore the same rejection as applied to claim 1 also applies to claim 9 since Lee et al teaches a computer system to perform the demand forecasting as in column 4, lines 40-67.

As per **claim 11**, it is the receiving step of the computer system of claim 10 to perform the demand forecasting. It is inherent to any computerized method that the computer would receive the data to perform the method.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lerner, US 5526257 – product evaluation system

Ouimet et al, US 6078893 – method for stabilized tuning of demand models.

Gilmen, "Technology in the Workplace: Strategy—The Technology Edge: In Their Drive for Competitive Advantage, Retail Chains Make Strategic Use of Computers".

Tone et al, US 5596493 – method for classifying sale amount characteristics, method from predicting sale volume

Fox et al, US 5832456 – weather adapted business performance forecasting

Fields et al, US 5299115 – product demand system and method

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnna R Stimpak whose telephone number is 703-305-4566. The examiner can normally be reached on M-F 8am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 703-305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Js
April 30, 2004

Romain Jeanty
Primary Examiner
Art Unit 3623